

IN THE CLAIMS:

Cancel Claims 1-23 and insert the following new claims:

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--24. (New) An *in vitro* method for identifying the repertoire of NKR inhibitory immunoreceptors within a subject wherein said immunoreceptors are selected from the group consisting of p58.1, p58.2, p70.INH, p140.NH, NKG2A and NKG2B receptors, these immunoreceptors being designated hereinafter target receptors, comprising:

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- (i) contacting a nucleic acid sample derived from said subject with at least one pair of oligonucleotides, one being designated a 3' oligonucleotide and the other a 5' oligonucleotide, the 3' and 5' oligonucleotides of the same said pair both being capable of hybridization in a buffer comprising 20 mM Tris-HCl, pH 8.4; 50 mM KCl; 2.5 mM MgCl<sub>2</sub> at a temperature of between 50°C and 65°C, to a nucleic acid encoding a target receptor, but not hybridizing, under the same hybridization conditions, with a NKR activatory immunoreceptor counterpart and;
- (ii) detecting hybridization between the nucleic acid encoding the NKR inhibitory immunoreceptor and the 3' and 5' oligonucleotide pair(s),

wherein detection of hybridization between the nucleic acid encoding the NKR inhibitory immunoreceptor and the 3' and 5' oligonucleotide pair(s) identifies the repertoire of NKR inhibitory receptors.

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25. (New) An *in vitro* method for identifying the repertoire of NKR activatory immunoreceptors within a subject wherein said immunoreceptors are selected from the group consisting of p50.1, p50.2, p70.ACT, p140.ACT, NKG2C, NKG2D, NKG2E and NKG2F, these immunoreceptors being designated hereinafter target receptors, comprising:

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- (i) contacting a nucleic acid sample derived from said subject with at least one pair of oligonucleotides, one being designated a 3' oligonucleotide and the other a 5' oligonucleotide, the 3' and 5' oligonucleotides of the same said pair both being capable of hybridization in a buffer comprising 20 mM Tris-HCl, pH 8.4; 50 mM KCl; 2.5 mM MgCl<sub>2</sub> at a temperature of between 50°C and 65°C, to a nucleic acid encoding a target receptor, but not hybridizing, under the same hybridization conditions, with a NKR inhibitory immunoreceptor counterpart; and;
  - (ii) detecting hybridization between the nucleic acid encoding the NKR activatory immunoreceptor and the 3' and 5' oligonucleotide pair(s),

wherein detection of hybridization between the nucleic acid encoding the NKR activatory immunoreceptor and the 3' and 5' oligonucleotide pair(s) identifies the repertoire of NKR activatory receptors.

26. (New) The method of claim 24 or 25 wherein the 3' or 5' oligonucleotides are coupled to a marker, allowing detection of hybridization between the nucleic acid sample and the 3' and 5' oligonucleotides.

27. (New) The method of claim 24 or 25 wherein the marker is a fluorescence marker.

28. (New) The method of claim 24 or 25 wherein the marker is a radioactive marker.

29. (New) The method of claim 24 or 25 wherein the 3' and 5' oligonucleotide pair(s) serve(s) as 3' and 5' primers, respectively, for extension by DNA polymerase.

30. (New) The method of claim 24 or 25 wherein hybridization between the nucleic acid sample and the 3' and 5' oligonucleotide pair is detected by PCR amplification.

31. (New) The method of claim 24 or 25 wherein amplification is by nested PCR.

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32. (New) The method of claim 24 or 25 wherein the hybridization which may be formed comprises, in addition, the resolution, on a polyacrylamide gel, of the reaction mixture derived from the bringing into contact, as well as the visualization of the presence or of the absence of electrophoretic bands containing the said hybrids which may be formed.

33. (New) The method of claim 24 wherein said method is used to document the genotypic repertoire of KIR immunoreceptors.

34. (New) The method of claim 24 wherein said method is used to document the expression repertoire of KIR immunoreceptors.

35. (new) The method of claim 25 wherein said method is used to document the genotypic repertoire of KAR immunoreceptors.  
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36. (New) The method of claim 25 wherein said method is used to document the expression repertoire of KAR immunoreceptors.

37. (New) The method of claim 24 or 25 wherein the nucleic acid sample is of human or animal origin.

38. (New) The method of claim 24 or 25 wherein the nucleic acid sample is derived from blood, bone marrow, lymphocytes, NK and/or T cells or transgenic cells.

39. (New) The method of claim 24 or 25 wherein the nucleic acid sample is a genomic or cDNA library.

40. (New) The method of claim 25 wherein the 3' oligonucleotide of a said 3' and 5' oligonucleotide pair, used for determining the repertoire of NKR activatory immunoreceptors, is capable, under the same said hybridization conditions, of hybridizing to a nucleic acid encoding KAR target receptor wherein said nucleic acid encodes the amino acid sequence Lys Ile Pro Phe Thr Ile (K I P F T I) or Lys Leu Pro Phe Thr Ile (K L P F T I) (SEQ ID No. 26 or 27)

41. (New) The method of claim 24 wherein the 5' oligonucleotide comprises the sequence of SEQ ID No. 1, and at least one 3' oligonucleotide selected from the group of 3' oligonucleotides comprising the sequence of SEQ ID No. 5, No. 2, No. 6 or No. 7.

42. (New) The method of claim 24 wherein the 5' oligonucleotide comprises the sequence of SEQ ID No. 4 and at least one 3' oligonucleotide selected from the group of 3' oligonucleotide comprising the sequence of SEQ ID No. 5, No. 2, No. 6 or No. 7, or a sequence which is derived therefrom.

43. (New) The method of claim 24 wherein a 5' oligonucleotide comprises the sequence of SEQ ID No. 9, or a sequence which is derived therefrom, and at least one 3' oligonucleotide selected from the group of 3' oligonucleotides comprising the sequence SEQ ID No. 5, No. 2, No. 6 or No. 7, or a sequence which is derived therefrom.

44. (New) The method of claim 24 wherein at least one 5' oligonucleotide comprises the sequence of SEQ ID No. 10, No. 11, No. 12 or No. 13 is selected from the group consisting of a 3' oligonucleotide comprising the sequence SEQ ID No. 14, or a sequence which is derived therefrom.

45. (New) The method of claim 25 wherein the 5' oligonucleotide comprises the sequence of SEQ ID No. 1 and a 3' oligonucleotide comprising the sequence of SEQ ID No. 3.

46. (New) The method of claim 25 wherein the 5' oligonucleotide comprises the sequence of SEQ ID No. 8 and a 3' oligonucleotide comprising the sequence of SEQ ID No. 3.

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47. (New) The method of claim 25 wherein the 5' oligonucleotide comprising the sequence of SEQ ID No. 9 and a 3' oligonucleotide comprising the sequence SEQ ID No. 3.

48. (New) The method of claim 25 wherein a 5' oligonucleotide comprises the sequence of SEQ ID No. 15 and a 3' oligonucleotide comprising the sequence SEQ ID No. 13.

49. (new) The method of claim 24 or 25 wherein the 3' and 5' of oligonucleotide pair(s) have as a target receptor a NKG2 receptor wherein said 3' and 5' oligonucleotide pairs are selected from the group consisting of:

a 5' oligonucleotide comprising the sequence of SEQ ID No. 16 and a 3' oligonucleotide comprising the sequence SEQ ID No. 17;

a 5' oligonucleotide comprising the sequence of SEQ ID No. 18 and a 3' oligonucleotide comprising the sequence SEQ ID No. 17;

a 5' oligonucleotide comprising the sequence of SEQ ID No. 19 and a 3' oligonucleotide comprising the sequence SEQ ID No. 17; and

a 5' oligonucleotide comprising the sequence of SEQ ID No. 20  
and a 3' oligonucleotide comprising the sequence SEQ ID No. 21.

50. (New) The method of claim 24 or 25 wherein said method is used to predict or to monitor the acceptance or rejection, by a subject, of cells, tissue or organ which are genetically different.

51. (New) The method according to claim 24 or 25 wherein said method is used to predict or to monitor the safety or the pathogenicity (GVH), for a subject, of a graft or transplant, of cells, tissue or organ which are genetically different.

52. (New) The method according to claim 24 or 25 wherein said method is used to predict or to monitor for a subject of a GVL-type effect on the part of cells, tissue or organ which are genetically different.

53. (New) The method of claim 24 or 25 wherein said method can be used to determine the state of activation of NK and/or T cells within a subject.

*Sub C3*      54. (New) The method of claim 24 or 25 wherein said method is used to predict or monitor the state of resistance of a subject to infection, wherein said infection is viral, such as an HIV infection, or a parasitic infection, such as malaria, or a bacterial infection, towards autoimmune disease, such as rheumatoid arthritis, or alternatively towards the development of malignant cells such as leukemia cells.

55. (New) The method of claim 24 or 25 wherein said method is used to screen for compositions which can be used to reduce the symptoms associated with infectious autoimmune or proliferation disorders.

56. (New) A kit for carrying out the method of claim 24 or 25 comprising a container, at least one said 3' and 5' oligonucleotide paid, and reagents for carrying out the said method.

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57. (New) The kit of claim 56 wherein said 3' and 5' oligonucleotide pair is coupled to a marker.--

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### R E M A R K S

Claims 1-23 are currently pending. Claims 4-23 are objected to, and Claims 1-3 are rejected under 35 U.S.C. § 102(b). Applicants have canceled Claims 1-23 and replaced them with new claims 24-57 which more particularly point out and distinctly claim the subject matter which Applicant regards as the invention. For reasons detailed below, the objections and rejection of the claims should be withdrawn.

#### 1. The Claims are Definite

Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph. The Examiner alleges that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, Claim 1 is rejected as indefinite because the instantly claimed method lacks a final process step that relates back to the preamble. In addition, the recitation of the following phrases: "in particular"; "capable"; "functional counterpart"; "NKR counterpart"; "the use"; and "approximately" are said to render the claims indefinite. Claims 1-3 are rejected because the claims are said to be written in the past tense. In